

26 JUL 1957

STATINTL

MEMORANDUM FOR: [REDACTED]

SUBJECT

: Transmittal of ORR Project 41. 1870,
"Incentives versus Coercion in the
Management of the Soviet Labor Force"

REFERENCE

: Economic Research Area Memorandum
"Economic Research Area, ORR Research
Support for Certain PP Requirements,"
dated 10 June 1957

The attached unclassified paper "Incentives versus Coercion
in the Management of the Soviet Labor Force" is the second report
forwarded as partial fulfillment of the commitments listed in refer-
enced memorandum. The responsible analyst is [REDACTED]

[REDACTED] Ext. 2821.

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TL

OTTO E. GUTHE
Assistant Director
Research and Reports

Attachment *IP-550*

STATINTL

St/C/RR: [REDACTED] :jl/8622 (26 July 57)

Distribution:

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Office Memorandum • UNITED STATES GOVERNMENT

TO : AD/RR
THRU : Chief, ERA *who*
FROM : Chief, D/S

DATE: 23 July 1957

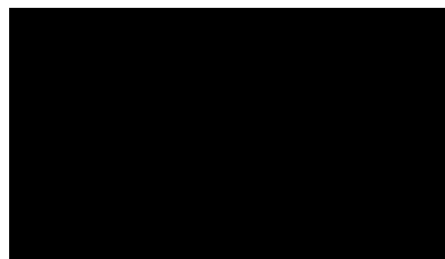
SUBJECT: Submission of Project 41.1870

25X1A

1. Subject project is submitted for your review and transmittal to the requestor. The attached memorandum sets forth the terms of reference and rationale used in the preparation of this report.

2. [REDACTED] has done her usual commendable job on a difficult assignment. The report is, as requested, unclassified. Publication by ORR is not recommended since DD/P intends to seek publication through other channels.

3. No substantive or procedural problems arose in the preparation of this report.



A

Chief, D/S

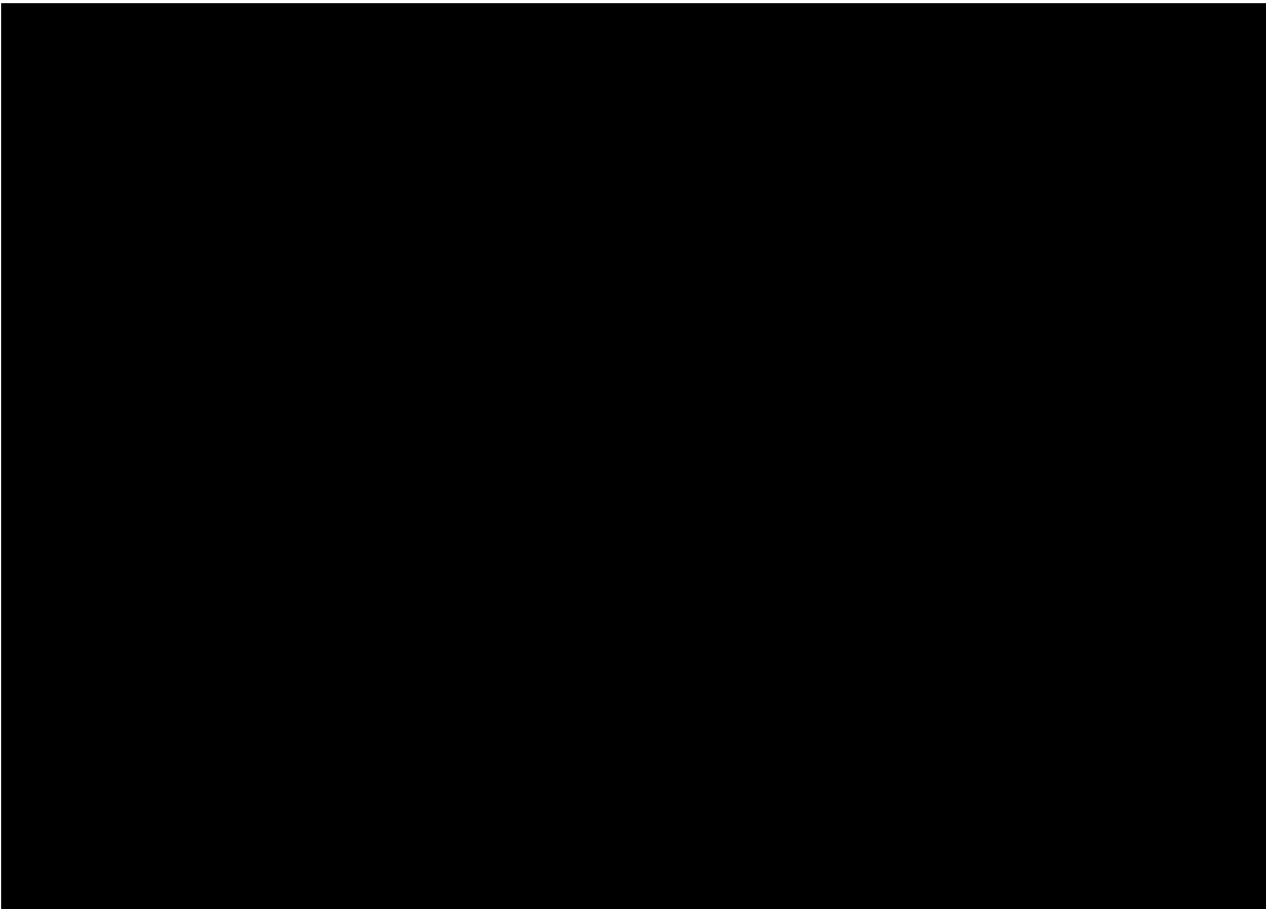
19 July 1957

THRU : Acting Chief, S/OM


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Submission of project LL.1870, "Labor".

25X1C

1. The attached paper has been prepared in response to a W/P request.
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25X1A



INCENTIVES VS. COERCION IN THE MANAGEMENT OF THE SOVIET LABOR FORCE

In a free enterprise economy workers distribute themselves among industries and occupations, acting from individual economic self-interest in response to changes in wages and in the demand for labor. The market mechanism operates automatically to redistribute the labor force in accord with changed conditions in product markets. Similarly, the pursuit of individual profit motivates workers and employers to strive for maximum individual and enterprise productivity. In a planned economy, in contrast, labor resources are allocated by means of a manpower distribution plan, which serves as a replacement for the labor market, and the level of productivity - or output per worker - is established as a specific plan target. But, whereas the market mechanism is by its very nature self-enforcing, the manpower and productivity plans of a centrally-planned economy must be supplemented with coercive or incentive measures designed to ensure their implementation. The management of labor resources in a planned economy thus entails the solution of two basic problems: how to obtain the desired distribution of available manpower among occupations and industries, and how to secure maximum productivity from each individual worker.

The Soviet Union has attempted to cope with these two problems in a variety of ways which reflect, at least in part, the changing economic environment that has resulted from implementation of the economic and political policies of Soviet leaders. Throughout the various Five Year Plans, Soviet labor policy has involved a changing mixture of coercion, persuasion, and

material incentives. During the 1930's the primary tasks were the assimilation into the industrial labor force of millions of peasants without skills or factory experience and the completion of many major construction projects essential to industrial development. These tasks were accomplished with a labor policy heavily weighted in favor of compulsion. Additional elements of coercion were introduced before and during World War II, when all civilians worked under conditions of virtual military discipline, and many of these elements were retained during the post-war reconstruction period. Beginning in 1951-52, however, it became evident that the more rigid of these controls were not being enforced. The liberalization of Soviet labor policy - i.e., the replacement of compulsion with inducement - was greatly speeded up after the death of Stalin, the most spectacular progress having been made in 1955-56.

The change in the character of Soviet labor policy during the past few years may be attributed in part to the disappearance of the emergency conditions that produced some of the harsher measures and in part to the change in the character of the industrial labor force. By and large, today's recruits for industrial jobs are the children of industrial workers; the labor force as a whole is accustomed to the routine of factory and office, and the need to train and "discipline" an industrial workforce recruited from rural areas no longer exists. The trend away from the use of compulsion in manpower management also indicates a clear recognition by Soviet leaders that efficient operation of a modern industrial society depends on the creative good will of workers and managers. With the tremendously rapid

technological progress in Soviet industry in recent years, productivity has come to depend less on the physical effort exerted by the individual worker, and more on his willingness to apply intelligence and skill to the discovery of better ways of doing things. This fact is reflected in the replacement of the Stakhanovite movement as an incentive device with the campaign to encourage "innovators", "rationalizers", and "inventors".

A continued high rate of economic growth in the USSR and the success of the drive to match per capita output levels of industrialized nations of the West will depend to an increasing extent on maintaining high annual rates of increase in labor productivity, since the sources for expansion of the industrial labor force are diminishing. Population and education statistics recently released by the Soviet government indicate the drastic reduction in labor force increments that is in prospect. 1/ Thus, the number of children aged 6 to 10 in school was a little less than 13 million in 1954-55, compared to nearly 24 million in 1948-49. Although this decline in school-age population will not affect the labor force significantly until after 1960, the impact of the birth deficit of the war years is already noticeable in the size of the labor force during the Sixth Five Year Plan (1956-60). Moreover, further inroads on the labor force of the kolkhozes cannot be made without endangering the success of the government's agricultural programs. To secure the requisite productivity, the Soviet government is, correctly, placing primary emphasis on speeding up the mechanization and automation of production processes throughout industry and is allocating substantial sums to this task. 2/

Soviet leaders are also aware, however, that important contributions to productivity can be realized by enlisting the creative and devoted effort of workers and that this requires a re-shaping of industrial relations policy. Although substantial progress has been made toward a labor policy appropriate to the new technological conditions and to the changed character of the labor force, much could still be done which would yield dividends in improved productivity and also would simplify the enormous task of administering a planned economy.

Direct Allocation of Manpower

Allocation of manpower by direct methods involving large elements of compulsion has long been a part of Soviet labor policy. The most important of these methods concern the assignment of university and vocational school graduates, the government's right to transfer certain kinds of skilled technicians, and the use of forced (prison) labor in economic undertakings. The training of young persons in trade schools under the system of state labor reserves is governed by various laws which prescribe criminal penalties for those who leave school or work without permission; these laws also provide for the "mobilization" of young people for training in these schools if planned enrollments cannot be met with volunteers, and require graduates to work for four years in jobs assigned by school authorities. 3/ Likewise, graduates of universities and technical schools must stay three years in jobs to which they are assigned. 4/ Until 1956, Soviet law also authorized the compulsory transfer from job to job of designated kinds of technicians and

skilled workers and prescribed criminal penalties for non-compliance. 5/

Finally, it is generally agreed that since the 1930's substantial numbers of persons sentenced for political and other crimes to terms in corrective labor camps have been employed on large-scale construction projects and in mining and other arduous activities in remote areas, and that prison labor thus has played a part of "some significance in the national economy". 6/

Since the death of Stalin the Soviet Union has taken important steps away from the compulsory direction of manpower. The law permitting obligatory transfer of technicians was repealed in 1956. In addition, there is much evidence to suggest that the large-scale use of prison labor for economic purposes is being abandoned. At least four major amnesties have been issued since March 1953, their breadth of scope indicating that (if actually carried out) substantial numbers of prisoners must have been released. 7/ According to a Soviet spokesman, two-thirds of the labor camps have been closed since 1953, and more than 70 percent of the prisoners have been released. 8/ Treatment of prisoners in the corrective labor camps apparently has improved, and, finally, it was announced early in 1957 that the "camps" were to be abolished and the inmates transferred to corrective labor "colonies" where primary attention would be given to rehabilitation. 9/

Sound economic and sociological bases exist for the decision to curtail the use of forced labor. There can be no doubt that the productivity of the prisoners was low, because of the conditions under which they lived and worked and because effective use could not be made of their skills under such circumstances.

Indeed, the ready availability of forced labor probably encouraged uneconomic undertakings in some cases, and in such industries as coal, gold mining and timber may actually have deterred the mechanization of ^N many operations in these industries - the primary method of raising productivity. The forced labor system also must have contributed to the reduction in the labor force potential, for the incarceration of large numbers of men in remote camps must have had an adverse effect on the birth rate. The declining rate of growth of the labor force means that labor is no longer an expendable resource and impels an up-grading of the value of the individual worker. The transformation of large numbers of prison laborers into free workers should ease the critical labor shortage and add considerably to the productivity potential.

If the re-orientation of the penal system proceeds along the lines presently indicated, the principal elements of compulsion remaining in Soviet labor practices will center about operation of the labor reserves schools and the handling of graduates from these schools and from the universities and technical schools. These sources supply the scientists, engineers, planners, managers and skilled technicians on which the economic progress of the USSR depends. Progress in each of the many sectors of a modern industrial economy demands a large measure of identification of the individual worker with his job. Beyond a certain stage, which certainly has been reached by now in the Soviet Union, economic progress cannot be achieved through force, but must come from spontaneity of action of the participants. In a planned economy the problem of maintaining a high level of morale

becomes an imperative. Forcing a young person to take a designated type of training against his will or to remain for three or four years in a job which he dislikes or considers unsuitable can in no way create good will and can only operate to the detriment of efficiency in the use of manpower. While school authorities in the USSR undoubtedly attempt to persuade people to accept training or to take designated jobs, authority to use compulsion if necessary still exists and failure to comply still entails criminal penalties. The objective of steering young people into vocations as required by state plans would be better served through establishment of vocational guidance programs in the secondary schools. Likewise, compulsory assignment of graduates could be replaced with the establishment of incentive arrangements designed to induce the graduates to take jobs in the desired geographic areas and to remain there. Bonuses might be offered, for example, for signing long-term contracts for ^{work} in less desirable areas or for renewal of annual contracts. Moreover, the task of allocating graduates would be greatly facilitated by a more widespread distribution of universities and technical schools throughout the country; it would be much easier, for example, to induce an engineer who had received his training in Irkutsk to remain there than it would be to persuade a graduate of Moscow University to go to Irkutsk.

The objections to the use of compulsion in the training and initial assignment of people to jobs also apply to the use of force to combat labor turnover and absenteeism. In an attempt to cope with the intolerable amount

of job changing that accompanied the tremendous expansion of the industrial labor force during the 1930's, the USSR in 1940 made it a criminal offense for a worker to leave his job voluntarily except for designated reasons; the same decree also prescribed criminal penalties for absence from work without good cause (progul) and made enterprise managers liable to criminal prosecution if they failed to report cases of progul or unauthorized departure from the job. 10/ The decree proved impossible to enforce and was repealed in April 1956. 11/ Faced with a scarcity of labor and impelled by the necessity for maintaining some semblance of employee good-will, employers simply failed to report violations of the labor discipline laws and gave illegal sanction to employees' requests to leave. This experiment with the use of legal sanctions to enforce labor "discipline" shows the impossibility of enforcing a virtual job freeze in peacetime, even in a centrally administered economy.

Admittedly, high rates of labor turnover and absenteeism are a serious problem in the USSR, 12/ but the government is now attempting solutions which are much more likely to prove effective than was the use of legal sanctions. The methods now in effect utilize the worker's own economic self-interest to keep him steadily at work and to reduce his desire to shift from job to job. Thus, absenteeism is punishable with administrative fines, deprivation of bonuses, or dismissal with loss of the right to temporary disability benefits for six months. These benefits are likewise denied for the same period to persons who quit their jobs. Moreover, the provisions of the social insurance systems are specifically designed to encourage

employment stability. The amount of a worker's temporary disability benefit depends directly on the length of uninterrupted employment in the same enterprise, and additions of 10 and 15 percent are made in the old age and disability pensions of those workers who have had specified amounts of continuous service. These incentives influence the individual worker to keep his job, and in addition the restoration of relative freedom in the labor market also gives the employer incentive to try to keep an individual on the job by making working conditions as pleasant as possible. The employer lacked this incentive when he knew that his workers could not quit without his permission. Under the current conditions of hyper-employment in the USSR, the restoration of freedom in the labor market may well stimulate a kind of "socialist competition" among enterprise managers to find methods of reducing labor turnover. Finally, the recent decision, currently being implemented, to cut the regularly scheduled workweek from 48 to 40-42 hours by 1960 undoubtedly will contribute materially to the reduction of absenteeism, particularly among women. With additional time to take care of personal and family affairs, workers will have less reason to risk the penalties of remaining away from the job.

The effectiveness of a free labor market in allocating workers in accord with the state's needs would be greatly enhanced by the establishment of a network of employment exchanges, where workers could go to learn about available jobs and where employers could seek workers. If operated in conjunction with vocational guidance programs in the secondary schools, these exchanges would provide an effective means through which the government could steer

workers into industries and areas where they were needed to implement economic plans. Exchanges could probably be set up quite easily by expanding the functions of the local offices which are currently responsible for administering the organized recruitment program. If such expanded units were attached to the newly established regional economic councils (kovmarkhoses), they would contribute greatly to efficiency in the use of the region's manpower by eliminating unnecessary movement of workers within the region; in addition, they could serve as a kind of clearing house, through which surplus workers from one region could be channeled into labor-short areas of another region. Finally, their operation would provide the government with valuable and current information on the supply and demand for various kinds of workers in individual areas and on the rates and working conditions required to induce workers to accept particular kinds of jobs and to migrate to given locations.

The Use of Material Incentives

While the USSR has used legal and administrative sanctions to allocate manpower and to enforce labor discipline - without notable success - , primary reliance has been placed on monetary incentives, both as a means of distributing the labor force and as a means of inducing the workers to produce and to improve their skills. The manipulation of an incentive structure to achieve desired ends is a most complex problem in a planned economy, for it involves essentially subjective judgments concerning the reaction of large numbers of individuals to given stimuli. The complexity is greatly increased when the basic requirement shifts - as it must during the various stages of transition

to a modern industrial state - from the need for maximum physical effort and greater manual skills to the need for ingenuity and prolonged training. Nevertheless, a planned economy enjoys the unique advantage of being able to adjust incentives quickly in response to experience and changing requirements.

After an initial period of experimentation with equalitarianism as a principle of distribution, the USSR has become firmly committed to the principle of rewards differentiated according to amount and kind of work. 13/ As would be expected, manipulation of incentives to achieve state objectives with respect to productivity and manpower is exercised primarily through the wage and salary structure. Thus, the productivity objective is promoted through the payment of most industrial workers in accordance with various kinds of piece rate systems, which relate earnings directly to individual output. 14/ Workers and employees whose jobs do not permit the establishment of piece rates are paid hourly rates or salaries supplemented with bonuses related to plan fulfillment, quality of output, reduction in the amount of scrap, and other measures of job or plant efficiency. Other bonuses are given for individual meritorious performance, financed from special "enterprise funds" or from prizes awarded the plant in socialist competitions. Manpower allocation objectives are fostered by incorporating geographic, occupational and industrial differentials in the basic wage and salary scales. In addition, special wage supplements are provided for longevity of service in designated industries and geographic regions.

Generally speaking, the present characteristics of the Soviet employee compensation system stem from the major wage reform undertaken in response to directives laid down by Stalin in a speech of June 23, 1931, in which he called for the "destruction" of the then existing "egalitarian" system. 16/

During the next few years the entire wage structure was revised to provide greater differentials between skill levels, and detailed wage handbooks were prepared for all major industries. Subsequently, the wage structure has changed without over-all plan or coordination, as a result of numerous decrees of the Council of Ministers and a multiplicity of actions by ministries and individual enterprises. From the demise of the Commissariat for Labor in 1933 until the establishment of the State Committee on Labor and Wages in May 1955, there was no central agency with primary responsibility for detailed coordination and review of ministerial actions in the field of labor and wages.

This lack of coordination, along with inadequate efforts to keep the system abreast of far-reaching changes in production, income and technology over the years, has produced a number of serious shortcomings in the present wage and salary system. 17/ In consequence, the system is not performing adequately its basic function of stimulating productivity and channeling labor in accordance with state requirements. The principal shortcomings are these: (1) as a result of stable basic wage rates in the face of a doubling of average money earnings since 1940, the major part of workers' earnings now consists of bonus payments and other supplements, so that such

incentive payments have lost most of their power to spur workers to greater effort; 18/ (2) in order to permit earnings to rise with unchanged base rates, work norms have been kept at much lower levels than are technically justified; 19/ (3) the wage system has become exceedingly complicated and therefore expensive to administer; 20/ (4) wage differentials between jobs of different skill requirements have become unduly narrow and as a result the worker little incentive to acquire skills; (5) great diversities prevail in occupational and regional differentials among the various ministries.

Recognizing these shortcomings and impelled by the necessity for bending every effort to maximize productivity, the USSR embarked in 1955 on a sweeping reform of its entire employee compensation system, designed to provide greater material incentives to increase output and lower costs. A State Committee on Labor and Wages was established to coordinate this project, which is currently being carried out industry by industry and plant by plant and is scheduled to be completed by 1960. In 1956 the wage reform was carried through in state agriculture and in the construction industry and was started in the coal and machine building industries; the changes are to be completed in these industries and also in the cement and metallurgical industries by the end of 1957. 21/ In addition, effective January 1, 1957, the wages of low-paid workers were raised considerably. Introduction of the new wages and work norms in individual plants is being carried out simultaneously with a whole series of measures to mechanize production operations and to organize more efficiently the entire production process in each plant. Moreover, plant managers are

being given considerably greater freedom of action in running their enterprises, and steps are being taken to regularize the supply of materials and equipment - a perennial problem in USSR industry. These rationalization measures, combined with the higher wage rates and improved incentive arrangements to accrue from the wage reform, undoubtedly will contribute materially to increased labor productivity throughout the economy.

From the accomplishments to date, it is evident that the wage reform is being carried out completely within the framework of the existing compensation system; ^{no} important innovations in wage and salary practices and methods are being attempted. On the whole, these methods and policies currently in force are based on correct concepts of human motivation and are well adapted to the end of securing an identification of individual interests with state interests. The wage system, even with the contemplated reforms, is predominantly oriented, however, toward maximizing output. With the increasing emphasis currently being placed on cost considerations by Soviet planners, it would seem desirable to make greater use of monetary incentives to promote cost-consciousness on the part of workers. Efforts are being made along this line in connection with the current reform in the methods of paying engineering-technical and managerial employees, but apparently not with respect to the payment of rank-and-file workers. Important gains in plant efficiency (and worker productivity) could be expected to accrue from the provision of some kind of scheme of incentives which would promote the interest of all plant employees, not merely in their own output or that of their brigade or shop, but in the output and

profitability (efficiency) of the plant as a whole. This might be accomplished by establishing a kind of profit-sharing scheme, whereby all enterprises employees would benefit directly from improvements in plant efficiency. For example, a designated portion of the total sums saved annually through planned or above-plan reductions in costs might be paid into a fund, from which bonuses would be distributed to all employees on the basis of fixed criteria. 22/ To encourage stability of the labor force and absenteeism, the criteria might include seniority in the enterprise and regularity of attendance. Some such scheme for profit-sharing would seem particularly appropriate for a socialist economy, where the means of production are publicly owned, since the individual worker would benefit directly from increases in the social product, instead of indirectly as now, and his interest in increasing the size of the product would be heightened.

The policy of offering greater material incentives as a stimulus to productivity is both economically and psychologically sound. The effectiveness of monetary incentives, however, depends on the availability of material goods for which money can be exchanged and on the standard of living of the worker, i.e., on the strength of his desire to improve his lot. The latter need has undoubtedly been met in the USSR through its extensive programs for raising the educational and cultural level of the people. Although some progress has been made in the past few years to expand the supply of consumer goods and services, additional resources will need to be devoted to this purpose if the efforts to revamp economic incentives are to prove fruitful.

Non-material incentives

Since human motivations to work stem from a variety of sources other than the desire for material things, non-monetary incentives can be an important supplement to material incentives in promoting labor policies. A socialist economy is in a particularly advantageous position to apply a variety of incentives, since it controls the means of mass communication and can manipulate the incentive structure quickly toward the achievement of given ends. It can promote high quality of output or performance through educating the worker to take pride in craftsmanship. It can foster manpower allocation objectives by building up through education and propaganda the prestige value of those occupations to which the state wishes to attract people. It can help to raise the skill level of the workforce by fostering respect for skill and the desire to emulate fellow-workers in attaining it. It can also use such symbols of achievement as medals, badges, length of service certificates, honor rolls, and the like, but the positive effects of such symbols undoubtedly will become less as the labor force matures industrially.

The USSR has used all of these devices with varying emphasis and effects at different times. In recent years it has sought to capitalize on the powerful motive of interest in the job itself as a stimulus to productivity. In replacing the outmoded Stakhanovite movement with the movement to encourage "innovators", the USSR has taken a highly constructive approach to providing job incentive through appealing to and channeling the creative faculties of

workers. The search for better ways of doing a job expands the worker's job horizon and promotes greater over-all productivity for the worker himself and for his factory. The wide publicity given workers' successful innovations and the efforts to disseminate them through the economy whenever applicable foster increased efficiency for the economy as a whole.

On a more general plane, people will also exert themselves if they feel their work to be a part of a constructive program which will redound to the benefit of themselves, their children or their country. The concept of "building socialism" undoubtedly serves as a powerful lever in the USSR, injecting a spirit of evangelism into economic activity and crystallizing the human aspiration for the improvement of society. Although the appeal to idealism certainly stimulated work effort during the 1930's and 1940's, its potentials are not now being realized to anywhere near the same degree, at least one reason being that the relevant Soviet propaganda has become stereotyped and unimaginative.

Even granting the stimulative effects of idealism, however, people will not continue to work indefinitely for altruistic motives, if no visible results flow from their efforts. In due course they become disillusioned and can no longer be spurred to greater effort by proffered visions of distant utopias. The USSR has been able to capitalize on the idealism of its people as a motivating force because the system has been able to produce tangible results - largely in the form of new production facilities and public works - which provided visible proof of progress. The rising generation of workers, however, has grown up in a world of such facilities, by and large, and has come to expect

the system to yield more in terms of current levels of living than did the predecessor generation. To sustain its incentive structure - both material and non-material - the USSR will need to allocate a greater share of its resources to providing for a rise in the level of living of its people. In short, it will have to provide its workforce with a "consumer goods base" sufficient to maintain an adequate standard of living, which is an essential pillar of a modern industrial state. In view of the relatively low level of living currently available to the average worker, and the perennial shortage of consumer goods available even for the better-paid among them, even modest improvements in the supplies of food, clothing and housing may be expected to yield large dividends in terms of morale.

REFERENCES

1. Tsentral'noye Statisticheskoye Upravleniye pri Sovete Ministrov SSSR,
Narodnoye khozyaystvo SSSR, Moscow, 1956.

Tsentral'noye Statisticheskoye Upravleniye pri Sovete Ministrov SSSR,
Kul'turnoye stroitel'stvo SSSR, Moscow, 1956.
2. It has been estimated that the USSR in recent years has devoted about one fourth of total national income to investment and that nearly half of the investment total has been allocated to industry. United Nations,
Economic Survey of Europe in 1956, Geneva, 1957, Chapter II, pp. 2,4.
3. Vedomosti Verkhovnogo Soveta SSSR, No. 37, 1940; No. 26, 1946; No. 21, 1947.
4. Sobraniye zakonov SSSR, No. 47, 1930, Article 486; Osnovnyye zakonodatel'nyye akty o trade rabochikh i sluzhaschikh, Moscow, 1953, p. 7.
5. Decree of October 19, 1940 "On the system of obligatory transfer of engineers, technicians, ^e foremen, office employees and skilled workers from one enterprise and institution to another."; Vedomosti Verkhovnogo Soveta SSSR, no. 42, 1940. This decree was repealed by the decree of April 25, 1956; Vedomosti Verkhovnogo Soveta SSSR, No. 10, 1956.
6. United Nations, ILO, Report of the Ad Hoc Committee on Forced Labor, Geneva, 1953, p. 98.
7. Amnesty of March 27, 1953; Pravda, March 28, 1953. Amnesty of July 14, 1954; RSFSR Criminal Code, 1956 ed., p. 130. Amnesty of September 17, 1955; Vedomosti Verkhovnogo Soveta SSSR, No. 17, 1955. Amnesty of September 20, 1956; Vedomosti Verkhovnogo Soveta SSSR, No. 19, 1956.

8. New York Times, May 16, 1957, p. 9.
9. Partynaya zhizn', No. 4, 1957, p. 67.
10. Decree of June 26, 1940. Izvestiya, June 27, 1940.
11. Decree of April 25, 1956. Vedomosti Verkhovnogo Soveta SSSR, No. 10, 1956.
12. In a speech to the Communist Party Plenum in July 1955, Premier Bulganin stated, "In 1954, in enterprises of All-Union and Union-Republic industrial ministries alone, and not counting timber cutting enterprises, 2,923,000 workers were engaged and 2,802,000 left." Pravda, July 17, 1955.
13. Current Soviet doctrine on the place of material incentives under socialism is typified in the Article by E. Kapustin in Voprosy ekonomiki, No. 6, 1954,
14. In 1956, about three-fourths of all workers in USSR industry were paid piece rates. Planovoye khozyaystvo, No. 6, 1956, p. 3.
15. A detailed description of the Soviet wage system is given in E.L. Manovich, Zarabotnaya plata i yeye formy v promyshlennosti SSSR, Moscow, 1951.
16. B.M. Konakov, Organizatsiya zarabotnoy platy i normirovaniya truda v promyshlennosti SSSR, Moscow, 1953, pp. 24-25.
17. Although the shortcomings in the wage and salary system have been pointed out by Soviet writers for a number of years, discussion of them has become commonplace following Bulganin's speech to the Communist Party plenum in July 1955.
18. Pravda, February 21, 1956. Sotsialisticheskiy trud, No. 1, 1956, p. 8.

In prewar years, incentive payments comprised 20-25 percent of workers' total earnings, compared to about 50 percent at present.

19. In the machine building industries in 1955, for example, the proportion of scientifically-determined norms ranged from 18.2 percent for enterprises of the Ministry of General Machine Building to 27.1 percent for those of the Ministry of Machine and Instruments Building. Pravda, July 28, 1956. Norms have been over-fulfilled by wide margins -- by 60-80 percent in 1954-55 in machine building, for example. Voprosy ekonomiki, No. 8, 1955, p. 6.
20. In 1955-56 the 24 industrial ministries used more than 1900 wage schedules and over 2000 base rates. Sotsialisticheskii trud, No. 1, 1956, p. 8.
21. Ibid., No. 1, 1957, p. 6.
22. Such funds would represent an extension of the "enterprise funds" currently established in many USSR enterprises and financed through fixed percentage deductions from profits. A small part of the funds is available for payment of bonuses to outstanding employees. Finansy SSSR, No. 4, 1956, pp. 85-87.